

ORIGINAL ARTICLE

# Physicochemical and Bacterial Properties of Pasteurized Milk Samples Collected from Tabriz, Northwestern Iran

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(Received: 6 December 2015 Accepted: 9 February 2016)

## KEYWORDS

Pasteurized milk;  
Microbial quality;  
Physicochemical  
properties;  
Iran

**ABSTRACT:** Milk and dairy products are important components of a balanced diet. Milk does have distinct physicochemical, biological and microbial characteristics. The bacterial contamination of milk not only reduces the nutritional quality but its consumption threatens health of the society. In this study, 100 pasteurized milk samples were collected randomly from Tabriz City, northwestern and were analyzed for total plate count (TPC), coliform, *E. coli* and some physicochemical properties (pH, titratable acidity and density). 33.3% of samples had unacceptable microbial contamination in both warm and cold seasons. *E. coli* contamination was not detected in all milk samples, but 54% of pasteurized milk samples were contaminated with coliforms. The pH value (6.6-6.8) and titratable acidity (0.14-0.16%) were in acceptable range. The means value of samples' density was  $1028.79 \pm 1.04$ . Lower microbial contamination level in this area indicates that the dairy factories are concerned about appropriate sanitary practice and pasteurization process.